CLAIMS

1.   A method for rendering a display of a list in a display field, wherein items in the list have a start time, an end time and associated data, comprising:

if the list is empty, draw empty slot images for a plurality of default times, beginning with a start of day time and ending with an end of day time in respective positions in the display field;

if the list is not empty, process each item in the list according to an order,

if the end time of the item is earlier than the start time of a next item according to the order, then insert at an available position in the display field a start slot image for the start time of the item followed by graphics, if any, identified by the associated data for the item, followed by an end slot image for the end time of the item if no end slot image for another item is found for the end time,

if the end time of the item matches the start time of a next item according to the order, then insert at an available position in the display field a start slot image for the start time of the item followed by graphics identified by the associated data for the item,

if the end time of the item is later than the start time of a next item according to the order, then insert at an available position in the display field a start slot image for the start time of the item followed by graphics, if any, identified by the associated data for the item, followed by an end slot image for the end time of the item if no end slot image for another item is found for the end time, and

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28   insert empty slot images at default times for which no end time

29   or start time occurs in the list.

1   2.   The method of claim 1, wherein the empty slot images comprise

2 text indicating respective default times in the plurality of default times.

1   3.   The method of claim 1, wherein the start slot images comprise

2 text indicating a start time for a corresponding item in the list.

1   4.   The method of claim 1, wherein the end slot images comprise

2 text indicating a end time for a corresponding item in the list.

1   5.   The method of claim 1, wherein the associated data for at least

2 on item in the list comprises text, and the graphics identified by the associated

3 data include characters of the text.

1   6.   The method of claim 1, wherein the default times include hours

2 between the start of day time and the end of day time.

1   7.   The method of claim 1, including assigning regions in the

2 display field to the empty slot images, and in response to input indicating the

3 assigned regions, displaying a tool for inserting an item in the list having a start

4 time equal to the default time of the empty slot image.

1   8.   The method of claim 1, including assigning regions in the

2 display field to the start slot images, and in response to input indicating the

3 assigned regions, displaying a tool for editing the item in the list corresponding

4 to the start slot image of the assigned region.

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9.   The method of claim 1, wherein the step of inserting empty slot images at default times includes inserting empty slot images for default times which occur after the end time of a first item in the list but do not occur between start times and end times for other items in the list.

10.   The method of claim 9, wherein the step of inserting empty slot images at default times includes inserting empty slot images for default times between the start of day time and the start time of an item in the list with an earliest start time, and between a last end slot image and an end of day time.

11.   The method of claim 1, wherein the display has a display height, and the start slot images, graphics indicated by associated data, end slot images and default slot images have respective heights, and the step of inserting empty slot images in the display field at default times includes

inserting empty slot images for default times which occur after the end time of a first item in the list but do not occur between start times and end times for other items in the list,

inserting empty slot images for default times between the start of day time and the start time of an item in the list with an earliest start time, and

inserting empty slot images for default times after the end time of an item in the list having a latest end time until the first to occur of the end of day time and a condition in which a sum of the heights of the inserted start slot images, graphics indicated by associated data, end slot images and default slot images fills the display height.

12.   The method of claim 1, wherein the order proceeds chronologically from the start of day to the end of day.

1   13.   The method of claim 1, wherein the order proceeds reverse

2   chronologically from the end of day to the start of day.

1   14.   The method of claim 1, wherein the display field comprises a

2   plurality of rows, and including positioning the start slot images, graphics

3   indicated by associated data, end slot images and default slot images

4   respectively in one or more rows in the plurality of rows.

1   15.   The method of claim 14, including in response to input

2   indicating the one or more rows of an empty slot image, displaying a tool for

3   inserting an item in the list having a start time equal to the default time of the

4   empty slot image.

1   16.   The method of claim 14, including in response to input

2   indicating the one or more rows of a start slot image, displaying a tool for

3   editing the item in the list corresponding to the start slot image.

1   17.   For a device including a touch screen input for indicating a

2   position on a display, a method for rendering the display of a list in a display

3   field including a plurality of display regions, wherein items in the list have a

4   start time, an end time and associated data, comprising:

5   if the list is empty, draw empty slot images for a plurality of default

6   times, beginning with a start of day time and ending with an end of day time in

7   respective positions in the display field;

8   if the list is not empty, process each item in the list according to an

9   order,

10   if the end time of the item is earlier than the start time of a next

11   item according to the order, then insert a start slot image

12   for the start time of the item followed by graphics, if any,

13   identified by the associated data for the item, followed by

14   an end slot image for the end time of the item if no end

15   slot image for another item is found for the end time, at

16   respective display regions in the display field,

17   if the end time of the item matches the start time of a next item

18   according to the order, then insert a start slot image for

19   the start time of the item followed by graphics identified

20   by the associated data for the item, at respective display

21   regions in the display field,

22   if the end time of the item is later than the start time of a next

23   item according to the order, then insert a start slot image

24   for the start time of the item followed by graphics, if any,

25   identified by the associated data for the item, followed by

26   an end slot image for the end time of the item if no end

27   slot image for another item is found for the end time, at

28   respective display regions in the display field, and

29   insert empty slot images at default times for which no end time

30   or start time occurs in the list at respective display

31   regions in the display field; and

32   in response to input indicating the display region of a start slot image,

33 displaying a tool for editing the item in the list corresponding to the start slot

34 image of the indicated display region; and

35   in response to input indicating the display regions of end slot images,

36 displaying a tool for inserting an item in the list having a start time equal to the

37 default time of the empty slot image of the indicated display region.

1   18.   The method of claim 17, wherein the empty slot images

2 comprise text indicating respective default times in the plurality of default

3 times.

1   19.   The method of claim 17, wherein the start slot images comprise

2   text indicating a start time for a corresponding item in the list.

1   20.   The method of claim 17, wherein the end slot images comprise

2   text indicating a end time for a corresponding item in the list.

1   21.   The method of claim 17, wherein the associated data for at least

2   on item in the list comprises text, and the graphics identified by the associated

3   data include characters of the text.

1   22.   The method of claim 17, wherein the default times include hours

2   between the start of day time and the end of day time.

1   23.   The method of claim 17, wherein the step of inserting empty slot

2   images at default times includes inserting empty slot images for default times

3   which occur after the end time of a first item in the list but do not occur between

4   start times and end times for other items in the list.

1   24.   The method of claim 23, wherein the step of inserting empty slot

2   images at default times includes inserting empty slot images for default times

3   between the start of day time and the start time of an item in the list with an

4   earliest start time, and between a last end slot image and an end of day time.

1   25.   The method of claim 23, wherein the step of inserting empty slot

2   images at default times includes inserting empty slot images for default times

3   between the start of day time and the start time of an item in the list with an

4   earliest start time, and between a last end slot image and an end of day time

5   until the display regions of the display field are consumed.

1   26.   The method of claim 17, wherein the order proceeds

2   chronologically from the start of day to the end of day.

1   27.   The method of claim 17, wherein the order proceeds reverse

2   chronologically from the end of day to the start of day.

1   28.   A hand held processor comprising:

2   a display having a display field including a plurality of display regions,

3   a touch sensitive overlay on the display field for providing input

4   indicating a position on the display field, and

5   processing resources for managing display of a list in the display field,

6   wherein items in the list have a start time, an end time and associated data,

7   which

8   if the list is empty, draw empty slot images for a plurality of default

9   times, beginning with a start of day time and ending with an end of day time in

10 respective positions in the display field;

11   if the list is not empty, process each item in the list according to an

12 order,

13   if the end time of the item is earlier than the start time of a next

14   item according to the order, then insert a start slot image

15   for the start time of the item followed by graphics, if any,

16   identified by the associated data for the item, followed by

17   an end slot image for the end time of the item if no end

18   slot image for another item is found for the end time, at

19   respective display regions in the display field,

20   if the end time of the item matches the start time of a next item

21   according to the order, then insert a start slot image for

22   the start time of the item followed by graphics identified

23   by the associated data for the item, at respective display

24   regions in the display field,

25   if the end time of the item is later than the start time of a next

26   item according to the order, then insert a start slot image

27   for the start time of the item followed by graphics, if any,

28   identified by the associated data for the item, followed by

29   an end slot image for the end time of the item if no end

30   slot image for another item is found for the end time, at

31   respective display regions in the display field, and

32   insert empty slot images at default times for which no end time

33   or start time occurs in the list at respective display

34   regions in the display field; and

35   in response to input indicating the display region of a start slot image,

36   display a tool for editing the item in the list corresponding to the start slot image

37   of the indicated display region; and

38   in response to input indicating the display regions of end slot images,

39   display a tool for inserting an item in the list having a start time equal to the

40   default time of the empty slot image of the indicated display region.

1   29.   The processor of claim 28, wherein the empty slot images

2   comprise text indicating a default time.

1   30.   The processor of claim 28, wherein the start slot images

2   comprise text indicating a start time for a corresponding item in the list.

1   31.   The processor of claim 28, wherein the end slot images comprise

2   text indicating a end time for a corresponding item in the list.

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32.   The processor of claim 28, wherein the associated data for at least on item in the list comprises text, and the graphics identified by the associated data include characters of the text.

33.   The processor of claim 28, wherein the default times include hours between the start of day time and the end of day time.

34.   The processor of claim 28, wherein the step of inserting empty slot images at default times includes inserting empty slot images for default times which occur after the end time of a first item in the list but do not occur between start times and end times for other items in the list.

35.   The processor of claim 34, wherein the step of inserting empty slot images at default times includes inserting empty slot images for default times between the start of day time and the start time of an item in the list with an earliest start time, and between a last end slot image and an end of day time.

36.   The processor of claim 34, wherein the step of inserting empty slot images at default times includes inserting empty slot images for default times between the start of day time and the start time of an item in the list with an earliest start time, and between a last end slot image and an end of day time until the display regions of the display field are consumed.

37.   The processor of claim 28, wherein the order proceeds chronologically from the start of day to the end of day.

38.   The processor of claim 28, wherein the order proceeds reverse chronologically from the end of day to the start of day.

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